This paper contains the ICD-9 diagnostic and procedure codes and the CPT procedure codes used by researchers for a project of the California HealthCare Foundation (CHCF) and the California Office of Statewide Health Planning and Development (OSHPD) to measure volume of surgeries for certain cancers for which there is evidence of an association between low volume and increased mortality/poor outcomes. Eleven cancer sites were chosen based on an extensive literature review by the Cancer Prevention Institute of California: bladder, brain, breast, colon, esophagus, liver, lung, pancreas, prostate, rectum, and stomach. The work of the project was guided by an advisory committee. ICD-9 and CPT codes were tested using OSHPD data and vetted by experts. The data were analyzed by a Stanford University consultant to CHCF.

Cancer	Code	Brief text
Bladder		
Diagnosis	188.x	Malignant neoplasm of bladder
Procedure	57.6	Partial cystectomy
	57.7	Total cystectomy
	57.71	Radical cystectomy
	57.79	Other total cystectomy
Brain		
Diagnosis	191.x	Malignant neoplasm of brain
	198.3	Secondary malignancy brain
Procedure	01.52	Hemispherectomy
	01.53	Lobectomy of brain
	01.59	Other excision or destruction of lesion or tissue of brain
Breast		
Diagnosis	174.x	Malignant neoplasm of female breast
	175.x	Malignant neoplasm of male breast
	233.0	Carcinoma in situ of breast
Procedure	85.21	Local excision of lesion of breast
(ICD-9)	85.22	Resection of quadrant of breast
	85.41	Unilateral simple mastectomy
	85.42	Bilateral simple mastectomy
	85.43	Mastectomy with excision of regional lymph nodes
	85.44	Bilateral extended simple mastectomy
	85.45	Unilateral radical mastectomy
	85.46	Bilateral radical mastectomy
	85.47	Unilateral extended radical mastectomy
	85.48	Bilateral extended radical mastectomy
CPT	19301	Partial mastectomy
	19302	Partial with axillary lymphadenectomy
	19303	Simple mastectomy
	19304	Subcutaneous mastectomy
	19305	Radical mastectomy
	19306	Radical mastectomy
	19307	Modified radical mastectomy
	19125	Needle localization excision

Cancer	Code	Brief text
Colon		
Diagnosis	153.x	Malignant neoplasm of colon
	230.3	Carcinoma in situ of colon
Procedure	17.31	Laparoscopic multiple segmental resection of large intestine
	17.32	Laparoscopic cecectomy
	17.33	Laparoscopic right hemicolectomy
	17.34	Laparoscopic resection of transverse colon
	17.35	Laparoscopic left hemicolectomy
	17.36	Laparoscopic sigmoidectomy
	17.39	Other laparoscopic partial excision of large intestine
	45.71	Open and other multiple segmental resection of large intestine
	45.72	Open and other cecectomy
	45.73	Open and other right hemicolectomy
	45.74	Open and other resection of transverse colon
	45.75	Open and other left hemicolectomy
	45.76	Open and other sigmoidectomy
	45.79	Other and unspecified partial excision of large intestine
	45.81	Laparoscopic total intra-abdominal colectomy
	45.82	Open total intra-abdominal colectomy
	45.83	Other and unspecified total intra-abdominal colectomy
Esophagus		
Diagnosis	150.x	Malignant neoplasm of esophagus
-	151.0	Malignant neoplasm of cardioesophageal junction
	230.1	Carcinoma in situ of esophagus
Procedure	42.40	Esophagectomy, not otherwise specified
	42.41	Partial esophagectomy
	42.42	Total esophagectomy
	42.5x	Intrathoracic anastomosis of esophagus
	42.6x	Antesternal anastomosis of esophagus
	43.5	Partial gastrectomy with anastomosis to esophagus
	43.99	Other total gastrectomy
Liver		
Diagnosis	155.x	Malignant neoplasm of liver and intrahepatic bile ducts
•	156.x	Malignant neoplasm of gallbladder and extrahepatic bile ducts
	197.7	Liver, specified as secondary
	209.72	Secondary neuroendocrine liver
	230.8	Carcinoma in situ of liver and biliary
Procedure	50.22	Partial hepatectomy
	50.3	Lobectomy of liver

Cancer	Code	Brief text
Lung		
Diagnosis	162.3	Malignant neoplasm of lung upper lobe, bronchus or lung
	162.4	Malignant neoplasm of Middle lobe, bronchus or lung
	162.5	Malignant neoplasm of lower lobe, bronchus or lung
	162.8	Malignant neoplasm of other parts of bronchus or lung
	162.9	Malignant neoplasm of lung, unspecified
	231.2	Carcinoma in situ of bronchus/lung
Procedure	32.20	Thoracoscopic excision of lesion or tissue of lung
	32.29	Other local excision or destruction of lesion or tissue of lung
	32.30	Thoracoscopic segmental resection of lung
	32.39	Other and unspecified segmental resection of lung
	32.41	Thoracoscopic lobectomy of lung
	32.49	Other lobectomy of lung
	32.50	Thoracoscopic pneumonectomy
	32.59	Other and unspecified pneumonectomy
	32.6	Radical dissection of thoracic structures
Pancreas		
Diagnosis	157.x	Malignant neoplasm of pancreas
Procedure	52.51	Proximal pancreatectomy
	52.52	Distal pancreatectomy
	52.53	Radical subtotal pancreatectomy
	52.59	Other partial pancreatectomy
	52.6	Total pancreatectomy
	52.7	Whipple procedure
Prostate		
Diagnosis	185	Malignant neoplasm of prostate
Procedure	57.71	Pelvic exeneration
	60.4	Retropubic prostatectomy
	60.5	Radical prostatectomy
	60.69	Other prostatectomy

Cancer	Code	Brief text
Rectum		
Diagnosis	154.0	Malignant neoplasm of rectosigmoid junction
	154.1	Malignant neoplasm of rectum
	230.4	Carcinoma in situ of rectum
Procedure	48.50	Abdominoperineal resection of the rectum, not otherwise
	48.51	Laparoscopic abdominoperineal resection of the rectum
	48.52	Open abdominoperineal resection of the rectum
	48.59	Other abdominoperineal resection of the rectum
	48.61	Transsacral rectosigmoidectomy
	48.62	Anterior resection of rectum with synchronous colostomy
	48.63	Other anterior resection of rectum
	48.64	Posterior resection of rectum
	48.69	Other partial resection of rectum
	68.8	Pelvic evisceration
Stomach		
Diagnosis	151.x	Malignant neoplasm of stomach
	230.2	Carcinoma in situ of stomach
Procedure	43.42	Local excision of other lesion or tissue of stomach
	43.5	Partial gastrectomy with anastomosis to esophagus
	43.6	Partial gastrectomy with anastomosis to duodenum
	43.7	Partial gastrectomy with anastomosis to jejunum
	43.81	Partial gastrectomy with jejunal transposition
	43.82	Laparoscopic vertical (sleeve) gastrectomy
	43.89	Open and other partial gastrectomy
	43.91	Total gastrectomy with intestinal interposition
	43.99	Other total gastrectomy